Massachusetts Water Works Association, Inc.

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David Terry
MA DEP
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RE: Perchlorate MCL

Dear Mr. Terry,

The Massachusetts Water Works Association (MWWA) offers the following comments relative to MADEP's proposed drinking water and waste site cleanup standard for perchlorate:

1. MWWA is not opposed to the regulation of perchlorate in drinking water by MADEP. The process to set a MCL and the choice of an appropriate MCL would have been enhanced had MADEP chosen to engage MWWA and the water supply community in open and frank discussions on the matter over the course of the past two years. Partnering with water suppliers on a subject that is of obvious interest would have been a proactive and beneficial move by MADEP.
2. MADEP has proposed a MCL and cleanup standard of 2.0 ppb for perchlorate that is extraordinarily low based on the available and emerging scientific studies. The MADEP proposed standard, which is far lower than the EPA Cleanup Standard and Drinking Water Equivalent of 24.5 ppb, raises serious concerns relative to the process by which drinking water standards are set, both at the State and national level. Much of the scientific work that suggests much higher standards has apparently been rejected by MADEP based on suspicions that industry influenced these studies. Such an approach is, in itself, unscientific and does nothing to support this extremely low standard.
3. The basis for the MADEP standard of 2 ppb seems to be that not everything is known about perchlorate health effects and the research that supports higher values is imperfect. A similar argument could be made for virtually every possible drinking water contaminant known. Rather than basing the standard on the results of a national scientific review performed by leading scientists in the field of thyroid health, MADEP has opted for an extreme and

unreasonable MCL. Since MADEP and the Commonwealth have selected this position it is incumbent upon them to provide financial assistance, in the form of grants, to water systems impacted by this MCL. It is suggested that the costs for public notification, treatment or development of new supplies for systems with perchlorate contamination less than 15 ppb should be borne by the Commonwealth.[1] It is fine for MADEP to take an absolutely protective stance relative to perchlorate in drinking water as long as it is willing to finance the resulting notification, treatment or new source costs. Water systems and their ratepayers should not be burdened by these costs that will produce questionable public health benefits.

4. Relative Source Contribution (RSC) is used by MADEP to support an extremely low MCL based on the argument that the more perchlorate that is ingested from non-water sources the lower the drinking water MCL must be to limit overall ingestion. Such an approach is fraught with problems. If residents are ingesting most of their perchlorate from foods and non-drinking water beverages then why the rush to set a drinking water MCL? Would not public health be best served by addressing the major contributors to overall perchlorate ingestion rather than the minor contributor that drinking water represents for all but a handful of residents? Does MADEP even know what the major sources of perchlorate ingestion are for Massachusetts' residents? MADEP seems to be concerned with exposure to perchlorate from sources other than drinking water yet has never performed a simple study to determine if perchlorate exposure from sources other than drinking water is a concern in the Commonwealth. MADEP has had several years to perform its own research and has failed to do so. Studies on perchlorate in produce, milk and other foods and beverages may not represent the situation in Massachusetts. For instance, while lettuce grown in California has been found to have relatively high levels of perchlorate is the lettuce purchased in Massachusetts supermarkets grown in California or elsewhere? MADEP is setting a Massachusetts MCL, not a nationwide MCL, so it is obligated to use data that is representative of Massachusetts.

5. If, as MADEP maintains, perchlorate needs to be regulated at such an extremely low level in order to be protective of public health then what is being done to reduce the risk posed by foods and beverages that may contain

[1] The 15 ppb is a suggested level based on the work of the National Research Council and a paper by Douglas Crawford-Brown et al that appeared in Environmental Health Perspectives titled "Inter-Subject Variability of Risk From Perchlorate in Community Water Supplies". Crawford-Brown et al performed a probabilistic risk assessment and found little or no incremental risk to the majority of individuals in the most sensitive sub-population at MCL's up to 24.5 ppb. Their work further suggests that an MCL of slightly below 20 ppb would produce this no risk level if perchlorate from all sources of water were included.

elevated levels of perchlorate. Nationwide studies find that milk may contain high enough levels of perchlorate to pose a health risk (using MADEP criteria). Assuming these studies hold true in Massachusetts (as MADEP has suggested) what is being done to warn or advise the public about this health risk? Since children likely consume more milk than adults are not they at a disproportionately higher risk? Perchlorate is perchlorate regardless of what consumable product it is carried in. There is a credibility gap when MADEP preaches of the need to reduce perchlorate to almost imperceptible levels in tap water yet there is no effort by the Commonwealth to address suggested major sources of perchlorate in our diets.

6. In addition to ordering public water suppliers to initiate public notice, source abandonment and treatment requirements for sources tainted by more than 2 ppb perchlorate, MADEP has the obligation to keep this contaminant from entering our water supplies in the first place. It is now well documented that fireworks and blasting agents are two of the major contributors to water supply contamination by perchlorate in Massachusetts. MADEP even initiated its own studies of fireworks and concluded that these displays leave significant perchlorate residues. Yet, other than a suggestion to fire chiefs that blasters should be careful in their use of perchlorate, MADEP has made no meaningful attempts to eliminate the use of perchlorate containing fireworks or blasting agents in drinking water areas in Massachusetts. If MADEP is to have credibility regarding perchlorate regulation, and convince water suppliers that this MCL and cleanup standard is a legitimate public health measure, then it must take firm action to keep perchlorate out of the environment. The first step in this regard is to ban the use of perchlorate-containing blasting agents and fireworks in Massachusetts. A statewide ban would be necessary to protect existing public and private water suppliers and prevent the contamination of future supplies. DEP should use its broad powers to directly initiate this ban and not simply force water suppliers, through regulations, to enforce the ban.

7. MADEP will argue that the clean up standard of 2 ppb will effectively eliminate perchlorate use but there are numerous chemicals with cleanup standards through the Massachusetts Contingency Plan (MCP) whose use has not been curtailed under threat of cleanup requirements. Often times the source of contamination can never be identified. If MADEP is confident that the MCP cleanup standard will be sufficient to protect water supplies then there should be no risk to the Commonwealth to establish a water treatment/source development grant program to fully fund treatment facilities or new sources brought on line by a water system due to perchlorate

contamination. The State could fully recover its costs for treatment through the MCP and fines levied on the source of contamination.

It is the opinion of MWWA that MADEP's proposed perchlorate drinking water MCL is extremely low and unjustified. If the agency truly believes that perchlorate at such low levels is harmful then the only logical next step for a regulatory group charged with protecting the environment and public health is to follow through on the actions outlined above. The alternative is for MADEP to reconsider its current proposal and recommend an MCL that is appropriate, protective of public health in a meaningful way and supported by science.

Please note that MWWA's position, as expressed in this letter, has been endorsed by the Western Massachusetts Water Works Association, the Middlesex/Worcester County Water Association, the Plymouth County Water Works Association and the Barnstable County Water Utilities Association.

With Water Works Pride,

James R. Marshall

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President